

## Remarks

1) Summary of Prosecution to Date

(a) The parent of the present application was filed on July 12, 2000 and originally included claims 1 – 56.

(b) A requirement for election of species was made on November 20, 2000. In consequence, by letter of December 14, 2000 the applicant made an election of species, namely of the claims then identified by the Examiner as “Group B”, these being claims 1 – 5, 6, 7, 13, 14 – 17, 18, 19, 20, 21, 24, 28 – 29, 32 – 34, 35, 41 – 45, 46, 55 and 56.

(c) By an Office Action mailed January 12, 2001 the Examiner indicated that claims 55 and 56 were objected to but would be allowable if re-written in independent form. Claims 1-7, 13- 21, 24, 28, 29, 32 – 34 and 41 – 46 were rejected.

(d) In reliance on the partial allowability indicated in the Examiner’s action, by reply of March 6, 2001, the applicant cancelled claims 1 – 46, 55 and 56, and rewrote claims 55 and 56 in independent form as new claims 57 and 58 respectively. The dependencies of claims 47 – 54 were amended to depend directly or indirectly from claim 58, and additional new dependent claims 59 – 65 were added to depend from claim 57.

(e) On March 20, 2001 the Examiner issued a second, non-final, action unexpectedly withdrawing the allowability of former claims 55 and 56, namely new claims 57 and 58.

(f) The Applicant filed a response to this action on September 24, 2001 including argument to overcome the Examiner’s rejections and the submission of new claims 66 – 83.

(g) The Examiner subsequently issued a final action, dated October 22, 2001, again rejecting the claims. The applicant understood that a continuing prosecution application (CPA) had been filed on February 22, 2002, and filed a “Preliminary Amendment” on March 27, 2002 to overcome the Examiner’s then current rejections.

(h) However, a CPA was not filed on February 22, 2002, but rather a continuation. Consequently, on October 10, 2002 the Examiner issued a new requirement for election of species, identical to the original requirement for election of species of November 20, 2000.

2) Preliminary Issue – Re-organisation of Prosecution

This Preliminary Amendment seeks to achieve three goals.

The first goal is to remove any confusion that may have been caused by the filing of the “Preliminary Amendment” of March 27, 2002.

The second goal is to put claims 47 – 54, 58, 59 – 65 and 66 – 83 in the condition they would have been in if, as had been intended, a CPA had been filed on March 27, 2002 rather than a continuation with the claims as originally filed.

The third goal is to re-establish the status of claims 1 – 46 in the condition that they would have been in had those claims not been cancelled in reliance upon the statements in the Office Action of January 12, 2001 that claims 55 and 56 would have been allowable if re-written in independent form. That is, claims 1 – 46 would have been subject to either (a) cancellation under the election of species of December 14, 2001, or (b) subject to argument, amendment, or both argument and amendment during normal substantive prosecution of those claims as they would have been if the applicant had known that the allowability of claims 55 and 56 would subsequently be reconsidered, as happened in the Office Action of March 20, 2001. This third goal is somewhat complicated by the fact that all of the former dependencies of claim 46 were subsequently amended to depend from claim 58.

To those ends, by this Preliminary Amendment the applicant :

- (a) respectfully requests that the Preliminary Amendment of March 27, 2002 be cancelled, as it was based upon the incorrect understanding that a CPA had been filed in the case;
- (b) once again elects group “B”, as formerly elected on December 14, 2000, Group B having then included claims 1 – 5, 6, 7, 13, 14 – 17, 18, 19, 20, 21, 24, 28 – 29, 32 – 34, 35, 41 – 45, 46, 55 and 56;
- (c) amends the claims such that claims 55 and 56 are cancelled and those claims that were pending at February 21, 2002, (namely claims 47 – 54, 57, 58, 59 – 65, and 66 – 83) are now pending in this case with the amendment status they would have had if (1) a CPA had been filed as

intended; and (2) the amendments of the "Preliminary Amendment" of March 27, 2002 had been incorporated as they were intended to have been amended at that time, with the intended argument that was to have accompanied those amendments;

(d) amends the claims to conform to the restriction requirement of January 12, 2001, namely to include claims 1-7, 13- 21, 24, 28, 29, 32 – 34 and 41 – 46 that were then rejected; and

(e) responds by way of amendment, argument, or both amendment and argument, to the substantive reasons for rejection of claims 1-7, 13- 21, 24, 28, 29, 32 – 34 and 41 – 46 in the Office Action of January 12, 2001.

**Re: Claims 1 - 46**

The following commentary is made with reference to the Rejections contained in the Office Action of March 20, 2001.

1) **Re: Drawing Amendments**

The objections under 37 CFR 1.84(p)(4) are addressed in the same manner as formerly addressed, namely that the applicant respectfully submits that the drawings will be amended as such time as the case has been allowed.

2) **Re: 35 USC 112**

**Claims 1 and 6**

The Examiner state: "In claim 1, line 6 – 8, the phrase "said articulation connection being longitudinally eccentrically mounted relative to said first truck" is confusing as an articulation connection point of *two railcars* would normally not have the same center point of application along a longitudinal axis of the railcar as the railcar truck. Similar confusing term exists in claim 6." (Emphasis added).

The applicant respectfully disagrees. The applicant respectfully submits that the Examiner has mis-read the claim.

The applicant is not claiming “two railcars”. The claim is for “An articulated rail road car”. It is not a claim for a plurality of rail road *cars* joined together. The claim indicates that it (i.e., the single articulated rail road *car* that is being claimed) has a plurality of rail car units (i.e., units of the single articulated rail road car that is, explicitly, the subject matter of the claim), and that the first and second rail car units of that railroad car are connected together at an articulated connection. In that case, it very much is “normal” for the center point of the articulated connector to be over the center of the shared truck. The extent to which it is normal is testified to by the ubiquity of patents showing the feature – in the current prosecution alone the cited references include USP 4,751,882 of Wheatley et al.; 4,503,779 of Chadwick; USP 4,336,758 of Radwill; USP 5,320,046 of Hesch; USP 5,743,192 of Saxton et al.; USP 4,233,909 of Adams et al.; USP 4,947,760 of Dawson, if not also many others, that appear to have this feature.

In consequence, the applicant respectfully submits that at least in this regard, neither claim 1 nor claim 6 is confusing when properly construed, and submits that the former rejection under 35 USC 112 was not well founded.

#### Claims 34 and 41

The Examiner has written:

“In claim 34, line 6, the word “trucks” is confusing as it is unclear how it relates to [the?] previously recited plurality of railcar trucks recited above in claim 28.”

In claim 41, line 11, the word “trucks” is confusing as it is unclear how it relates to [the?] previously recited trucks above.”

In essence this is the same rejection, made twice over.

The word “trucks” to which the examiner objects is not used as a noun referring to one of the antecedent elements of the claim. Rather, as the grammatical structure of the claim clearly shows, the word “trucks” to which the examiner objects is part of the adjectival sub-clause “free of trucks”. When read as such, the sense of the phrase is clear, unambiguous, and grammatically correct as it stands. The applicant respectfully submits that the Examiner has mis-read the claim, and that the rejection under 35 USC 112 is without foundation.

Alternatively, if the Examiner can demonstrate, under generally accepted rules of English grammar or caselaw, that the phrasing in either claim 34 or claim 41 contains a grammatical error, the applicant will gladly correct any such error the Examiner can identify and explain.

Claim 41 – Distances  $D_1$  and  $D_2$ 

The Examiner has written: “In claim 41, line 16, the phrase “said first distance  $D_1$  being less than said second distance  $D_2$ ” is confusing as it is unclear how can the distance between the articulation connection and the second truck be less than the distance between the third truck and the first truck.”

The applicant assumes that the Examiner meant to say: “... as it is unclear how the distance between the articulation connection and the second truck can be less than ...”

As a first matter, the applicant again respectfully submits that the Examiner has not read the claim correctly. The applicant has not claimed that “the distance between the articulation connection and the second truck [is] less than the distance between the third truck and the first truck.”

The first distance,  $D_1$ , is measured between the third truck and the first truck.

The second distance,  $D_2$ , is measured between the articulation connection and the third truck.

As will be noted, claim 41 says nothing about “the distance between the articulation connection and the second truck”.

As such, the applicant respectfully submits that the rejection was without foundation, since the feature to which the Examiner objected was not recited in the claim. The applicant respectfully submits that the rejection of claim 41 on this ground was unfounded.

3) Re: 35 USC 102

Claim 46 was formerly rejected under 35 USC 102 (b) as being anticipated by Dominguez et al. The applicant respectfully traverses this rejection.

As a preliminary matter, the applicant notes that there is no indication to which “Dominguez et al.” patent the Examiner intends to refer, but assumes it is US P 4,966,081. The applicant notes that the articulated connector arrangement in Dominguez is symmetrical. The articulated connector is clearly not cantilevered, but rather is carried directly over the shared truck in the conventional manner.

4) Re: 35 USC 103

The Examiner rejected claims 1 – 7, 13 – 21, 24, 28 – 29, 32 – 34, and 41 – 46 under 35 USC 103 (a) as being “unpatentable over Ehrlich et al ‘115 in view of Dominguez et al.”, and as being “unpatentable over Christoph ‘933 in view of Dominguez et al.”

In each case the Examiner re-iterated his view that Dominguez has a cantilevered articulation. As is abundantly clear from Dominguez’ drawings, Dominguez has no such feature. Dominguez’ articulated connector is squarely over the shared truck. See Dominguez Figure 8, given the location of wheels 149, and pin 194. The applicant respectfully submits that given Dominguez’ illustrations, the rejections made on the basis of Dominguez cannot stand.

5) Other Amendments

Claims 1, 6, 7, 10, 13, 14, 15, 41 and 46 have been amended. Claims 1, 6 and 46 have been amended to reduce the possibility of the claim language being mis-interpreted. The remaining claim amendments are self-explanatory amendments made to improve the syntax of the claim or to provide language that is consistent with an antecedent term.

**Re: Claims 47 - 83**1) Rejections Under 35 USC 112: Mis-Numbering of Dependencies

Claims 45 – 54 have been amended, and claims 57 – 83 have been added as new claims to re-establish the claims as they were pending at February 21, 2002. In the new claims introduced by the response to Office Action of September 20, 2001, the dependencies were inadvertently mis-numbered, including those of claims 69 and 76 as noted by the Examiner. This has been corrected.

Similarly, the argument submitted with that response included reference to claims 84 and 85. Those references should have been to claims 82 and 83 respectively.

2) Rejections Under 35 USC 103 – Obviousness

The applicant repeats the commentary made in the response to Office Action of September 24, 2001, and in particular repeats its commentary with regard to US Patent 5,622,115 of Ehrlich et al., (hereinafter Ehrlich); US Patent 5,320,046 of Hesch (hereinafter Hesch); US Patent 2,865,306 of Bock et al., (hereinafter Bock); and German Patent 688 777 of Christoph & Unmack A.G. (hereinafter Christoph).

(a) MPEP Section 2142: Basic Requirements of a *Prima Facie* Case of Obviousness

Section 2142 of the Manual of Patent Examining Procedure (MPEP) states:

ESTABLISHING A *PRIMA FACIE* CASE OF OBVIOUSNESS

“To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on the applicant’s disclosure. *In re Vaeck*, 947 F. 2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

...

(b) Must Have Teaching, Suggestion, or Incentive to Combine

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention *absent some teaching, suggestion or incentive* supporting the combination *ACS Hospital Systems Inc. v. Montefiore Hospital*, 732 F. 2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir.). See also *In re Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002),. (Cited in *In re Geiger*, 815 F.2d at 688, 2 USPQ 2d at 1268 (Fed. Cir. 1987) (Emphasis added)).

Obviousness cannot be established by combining references without also providing objective evidence of the motivating force that would impel one skilled in the art to do what the patent applicant has done (See *In Re Lee*, *supra*; see also *Ex Parte Levengood*, 28 USPQ2d 1300, 1302 (Bd. Pat. App. & Inter. 1993)).

(c) Inquiry Must Present a Convincing Line of Reasoning

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. “To support the conclusion that

the claimed invention is directed toward obvious subject matter, either the references must expressly or impliedly, suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.” *Ex Parte Clapp*, 227 USPQ972, 973 (Bd. Pat. App. & Inter. 1985) (Emphasis added).

...

When the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the examiner to explain why the combination of the teachings is proper. *Ex Parte Skinner*, 2 USPQ2d 1788 (Bd. Pat. App. & Inter. 1986)."

(d) Inquiry Must Be Thorough And Searching

"The factual enquiry whether to combine the references must be thorough and searching. *Id.*, It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. ...

"The need for specificity pervades this authority. See e.g.,

*"In re Kotzab* 217 F. 3d 1365, 1371, 55 USPQ 2d 1313, 1317 (Fed. Cir. 2000) ("particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.");

*In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ 2d 1453, 1459 (Fed. Cir. 1998) ("even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious.");

*In re Fritch*, 972 F. 2d 1260, 1265, 23 USPQ 2d 1780, 1783 (Fed. Cir. 1992) (The examiner can satisfy the burden of showing obviousness of the combination "only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references")."

(See *In re Lee*, cited above. Emphasis and paragraph division added.)

Conclusory statements by an examiner do not adequately address the issue of motivation to combine. – *In re Lee*, *supra*.

(e) "Would have been obvious to one skilled in the art"



The MPEP requires that the examiner provide an objective source of support for a contention that a feature is known or obvious to one skilled in the art. An unsupported statement that a feature or combination “would have been obvious to one skilled in the art” is improper if made without support. *In re Lee, supra*, and *In re Garrett* 33 BNA PTCJ 43.

A statement that modifications of the prior art to meet the claimed invention would have been “well within the ordinary skill of the art at the time the claimed invention was made because references relied upon teach that all aspects of the claimed invention were individually known in the art” is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ 2d 1300 (Bd. Pat. App. & Inter. 1993). See also *Al-site Corp. v. VSI Int’l Inc.*, 174 F.3d 1308, 50 USPQ 2d 1161 (Fed. Cir. 1999) (The level of skill in the art cannot be relied upon to provide suggestion to combine references).

3) Claim 58 and Dependent Claims 47 – 54 and 66 – 71

Claim 58 reads as follows:

58. (New) An articulated rail road freight car comprising at least first and second rail car units connected at a cantilevered articulation, said rail road freight car having a first end, a second end, and a releasable coupler mounted at each of said first and second ends, said releasable couplers being operable to permit interchangeable operation with other rail road freight cars in North American service.

(a) The Ehrlich Reference – US Patent 5,622,115

The Examiner had cited the Ehrlich patent as the primary reference upon which rejection was based. The applicant reiterates the commentary made in the response to Office Action of September 24, 2001.

To summarise the applicant’s commentary with regard to Ehrlich:

- (1) Ehrlich is not an articulated rail road freight car;
- (2) Ehrlich does not have first and second rail car units joined at a cantilevered articulation; and

- (3) Ehrlich does not have releasable couplers that permit interchangeable operation with other freight cars in North American Service.

The following commentary is based in part on statements from the previous office action, in which the Ehrlich reference was incorrectly characterised as follows:

“Ehrlich et al teach all the limitations of claim 58 by showing in fig. 1 an articulated railroad freight car comprising at least first and second railcar units (20, 20a) connected at a cantilevered articulation (10), said railroad freight car (20) having a first end (28), a second end (30), and a releasable coupler (22) mounted at each of said first and second ends, said releasable couplers being operable to permit interchangeable operation with other railroad freight cars in North American service”.

- (1) Ehrlich is not an articulated rail road freight car.

(a) By definition, to be an articulated rail road car in North American parlance, the car must have releasable couplers at either end, and at least one articulated connector at some intermediate location between a pair of adjacent units of that rail road car, such that the car may bend in the middle, or at several places between the couplers. Articulated connectors make a permanent connection between the units of an articulated rail road car. They are not releasable in the manner of couplers that can be released at will by railyard personnel as an incident of shunting.

It appears from the Office Action that the Examiner may not be familiar with what an articulated connector is. By way of general information, therefore, the applicant has appended copies of examples of articulated connectors as shown in the 1980 *Car and Locomotive Cyclopedia* at pp. 498 – 499, and in the 1997 *Car and Locomotive Cyclopedia* at pp. 672 – 674.

(b) It is important to recognise that items 20 and 20a of Ehrlich are not one railcar. They are separate railroad cars, as indicated by Ehrlich himself at col. 1, lines 4 – 6:

“The invention is generally directed to a novel railcar which, when connected to other like railcars, forms an articulated train...” (Emphasis added).

Ehrlich shows a string of railroad cars, releasably joined together. Neither railcar **20** nor railcar **20a** is an articulated railroad car. Ehrlich shows several single unit railcars cars joined together. This is the opposite of what is claimed in claim 58.

(2) Ehrlich lacks first and second rail car units joined at a cantilevered articulation.

Given that Ehrlich does not show an articulated rail road car, it follows that Ehrlich's cars (that are not, themselves, articulated) plainly do not have an internal articulation, let alone a cantilevered articulation.

Item **20** is identified at Ehrlich col. 5, line 32, (and again at line 38) as "the novel railcar" (emphasis added). Items **20a** and **20b**, are identified at Ehrlich col. 16, lines 63 and 65 as "the end railcars". They are not a single railcar having first and second rail car units joined at a cantilevered articulation.

(3) Ehrlich does not have releasable couplers that permit interchangeable operation with other freight cars in North American Service.

Ehrlich employs special releasable mating fittings that are clearly not intended for interchange service in North America. For example, the Ehrlich fittings are quite clearly not from the AAR Type E, or Type F families, or other AAR coupler types for use in interchangeable North American service. Clearly Ehrlich's tongue **162** and socket **164** cannot be connected with Type E or Type F couplers, such as would be a necessary capability for interchangeable freight car service in North America.

Couplers for interchange service must conform to one of the AAR coupler specifications. Couplers are shown and described at pp. 642 – 661 of the 1997 *Car and Locomotive Cyclopedia*. Copies of these pages are provided for the Examiner's consideration.

In the event that the Examiner re-states the current rejection on the basis of Ehrlich, the applicant specifically requests under MPEP 707.07(f) that the Examiner (a) identify specifically where Ehrlich shows couplers for interchange service, or (b) explain, with specificity, how the special tongue and socket fittings used by Ehrlich can couple with AAR type E or Type F couplers, as would be required in interchange service in North America.

(b) The Bock Reference – US Patent 2,865,306

The applicant repeats its commentary made in the response to Office Action of September 24, 2001. To summarise:

- (1) Bock emphasises the importance of being able to vary the train consist;
- (2) there is no indication that Bock shows a rail road freight car;
- (3) there is no indication that Bock has couplers for interchange service in North America; and
- (4) there is no reason to combine Bock with Ehrlich.

The Examiner has cited Bock with respect to claims 57 and 59 – 65. Bock explains his invention at col. 1, lines 15 – 45:

“The present invention relates generally to a new and improved train consist which includes the use of at least one self-supported car interconnected with a plurality of single axle cars which are of standardized design and capable of forming a train consist with the self supported car which is adapted for bi-directional operation.”

“Recent efforts in improving railway car construction have included the emphasizing of *lightweight construction for high speed operation*. In reducing the over-all weight of a complement of cars, considerable interest has been shown in the use of single axle cars which are inter-connected with one another in load-bearing support by the use of load-bearing *couplers*...

... On each end of the self-supported car is permanently coupled a single axle car, each of these cars carrying its axle at the end furthestmost from the center car. A train consist formed from units of this type will include either a single unit or a plurality of such units. As a result *it is impossible* to form a consist of a number of cars which is less than three or greater than a multiple of three. *A situation of this nature is undesirable* as the *passenger requirements* for a train formed from units of this type will not always correspond to the use of three cars or multiples thereof and it is often found that some of the cars are being unnecessarily used, thereby increasing operating costs for a particular train. (Emphasis added).

At col. 1, lines 61 – 67 Bock also states:

“It is *an object* of the present invention to provide a new and improved train consist which is derived from the use of specially designed cars all of which may be standardised in the production thereof *and which consist is readily adapted for variation* with respect to the number of components forming the total thereof in line with efficient use of existing train yard facilities and procedures.

(Emphasis added).

The Examiner has noted Bock Figure 2. At col. 3, line 63 to col. 4 line 6 Bock says, *inter alia*:

“In Fig. 2, a three-car shop-connected unit is schematically shown as including a center self-supported car 22 which is provided with longitudinally spaced axles near each of the ends thereof similarly as described in connection with car 11 of Fig. 1. ...

... The three car unit of Fig. 2 is provided at its ends thereof with female coupling members 29 of the type previously described.”

Continuing at, col. 4, lines 14 – 29:

“In comparing cars 26 – 26’ with cars 13 it will be noted that the only difference existing between these cars is the reversed mounting of the male and female coupling members. This difference is illustrated *for the purpose of fully bringing out an important feature of the present invention*, namely, that the single axle cars manufactured should be standardized with respect to the features discussed above *so as to provide a consist of any number of such cars being provided at the exposed ends thereof with the same type of cupling member whether it be male or female*. The three car unit of Fig. 2 is arranged to provide at each of its exposed ends a female coupling member for load bearing mating with a male coupling member carried by the car 26’ of Figure 3 at the unsupported end thereof or with male coupling member carried by a locomotive or other power means.” (Emphasis Added).

From this, one can reasonably infer not only that Bock foresees changing the train consist by adding or subtracting cars, but also that the cars added and subtracted, and the locomotive pulling them, should have appropriate male and female connectors.

- (1) Bock emphasises the importance of being able to vary the train consist.

It is abundantly clear from the above quotation that Bock is discussing an entire train consist. Bock was not concerned with the issues discussed by the present inventor.

- (2) There is no indication that Bock shows a rail road freight car.

There is no indication in Bock that the car of Fig. 2 is a freight car. Bock does mention “passenger or freight capacity”, but only in the context of pointing out how undesirable it is to have fixed-consist three-pack units. There is no indication that the embodiment of Fig. 2 was

suitable for carrying freight, and the text appears to suggest that Bock was concerned about altering passenger consists (col. 1, lines 40 – 41). The single axle truck arrangement and the style of bellows (diaphragm 45) shown by Bock would also tend to suggest relatively light weight passenger equipment, as does Bock's reference to light weight high speed operation.

(3) Bock does not have couplers for interchange service in North America.

Bock has a special kind of releasable pin connection – see items 35, 36, 37, 38 and 39 in Figure 4. It is abundantly evident that this connection is not a releasable coupler of any of the types specified by the AAR for interchange service in North America.

(c) The Hesch Reference – US Patent 5,320,046

The applicant repeats its previous commentary concerning the Hesch reference.

The Office Action stated: “The general concept of using [a ?] longitudinally offset cantilevered articulation connection with side bearing arms in a railroad freight car is well known in the art and is illustrated by Hesch see Figs 1 – 4, 18”

The applicant has previously explained that there is no such feature shown in Hesch.

Figures 1 and 2 of Hesch show top and side views of a two unit articulated rail road car. Figures 3 and 4 show the couplers of the rail road car of Figures 1 and 2. Figure 18 is viewed in conjunction with Figure 17. Figures 17 and 18, are, respectively, side and top views of taken locally at the articulation.

It is strikingly clear from Hesch Figures 17 and 18 (and from Figures 1 and 2) that the point of articulation is directly above the truck center. Therefore, the articulated connector cannot possibly be cantilevered. The applicant is at a loss to understand how Hesch could more clearly have shown that the articulated connector is not cantilevered at all. A photocopy with this feature marked in red is provided for the Examiner's review.

The applicant submits that not only do Hesch's Figures not support the Examiner's assertion, but rather very clearly show the contrary. The applicant submits that Hesch does not support the rejection made by the Examiner in any way.

In the event that the Examiner re-states the rejection under 35 USC 103 based on Hesch, the applicant requests that in conformity with the Examiner's duty under MPEP 707.07, (a) that the Examiner specifically and precisely indicate on photocopies of Figures 17 and 18 the cantilever arm distance, to demonstrate where the Examiner has identified a cantilever; and (b) that the Examiner specifically and precisely explain how the articulated connector can be cantilevered if it is above the truck bolster of a shared truck. Where is the cantilever ?

(d) No Suggestion, Motivation, or Incentive to Combine References

The Examiner is required, by law, to show that there is an objective suggestion, motivation or incentive in the references that would prompt a person skilled in the art to make the proposed combination to arrive at the claimed invention.

The Office Action is silent in this regard. It has not identified any such suggestion, motivation, or incentive in any of the three cited references, namely Ehrlich, Bock and Hesch.

Specifically, (a) the office action evinces no suggestion, motivation or incentive to make the initial proposed combination of Bock and Ehrlich; and (b) the office action fails to demonstrate any suggestion, motivation, or incentive to make the further combination of Hesch with Ehrlich, or of Hesch with Bock, let alone of Hesch with Bock and Ehrlich.

(e) Destruction of Function: Combining Hesch with Bock

In addition to lack of suggestion, motivation, or incentive to make the proposed combination, the applicant notes that the combination of Hesch with Bock would appear to destroy one of Bock's explicitly desired functions, contrary to *in re Gordon*.

Bock points out the desirability of being able to make up train consists of any number of cars. Even assuming that Bock's releasable connectors were replaced with an articulated connector, that very replacement would destroy one of Bock's desiderata – the ability easily to change the number of cars in the consist.

Destruction of Function: Hesch Combined with Ehrlich

Similarly, if Hesch's articulated connector were used with Ehrlich's cars, then those cars would no longer have the specific hitch geometry claimed by Ehrlich, and would not be able to be uncoupled for towing by tractor trailers, as thought to be advantageous by Ehrlich. (See Ehrlich Figure 2, and col. 1, lines 8 – 15).

Destruction of Function: Bock 3 Pack Combined with Ehrlich

Combining Bock's 3 pack with Ehrlich would raise the same issue as combining Hesch and Ehrlich. That is, for Ehrlich to work, the cars have to come apart so they can be moved around with a tractor-trailer rig. But if the cars are permanently joined, this does not work.

Final Combination is Missing at least one Element

Even if the combinations are proposed as suggested by the Examiner, the end result will still not provide an articulated rail road freight car having a cantilevered articulation.

Summary

The applicant submits that the Office Action does not establish grounds for a *prima facie* rejection under 35 USC 103. The art cited by the Examiner does not show the features suggested by the examiner, as noted in detail above. There is no suggestion, motivation, or incentive demonstrated in the office action to make either the initial combination of Ehrlich and Bock, or to make the further combination of Hesch with Ehrlich and Bock. There are grounds to conclude that the proposed combination of Hesch with either Ehrlich or Bock, or both, will destroy important features of Bock's or Hesch's inventions. Finally, the resultant combination will not, for the reasons stated above, result in a device having all the features of the claimed invention, in particular the cantilevered articulation.

As such, the applicant submits that *prima facie* grounds for rejection under 35 USC 103 have not been established on the basis of Ehrlich, Bock and Hesch, or any combination thereof.

(f) The Christoph Reference - DE 688 777

By way of alternative, the Examiner has rejected claim 58 and the claims dependent therefrom given the Christoph reference in light of Bock and Hesch.



As noted previously, the inventor does not speak German. As such, commentary is made on the basis of the illustrations of Christoph, unless noted otherwise. Christoph appears to be similar to Bock, and appears to show a train set of single axle cars, with a two axle car in the center and locomotives (?) at either end.

The office action did not demonstrate (1) that Christoph teaches a rail road freight car (it looks very much like a light weight, high speed passenger car set, like Bock); (2) that Christoph teaches an articulated car (as opposed to a string of cars coupled together as in Bock); and (3) that Christoph shows a car that has couplers permitting interchange service in North America. (Clearly, it doesn't).

#### Christoph does not show a two axle truck

Contrary to the assertion in the office action, Christoph clearly does not show a "dual axle truck". If it did, the dynamic behaviour of "Mittelwagen *d*" under a buff load (or during truck "hunting") might be quite something to see. In any case, the word "zweiachsigen" appears to mean 2 axles, and "Mittelwagen" appears to mean middle car. This and the illustration would seem to indicate that the middle car has two axles, one mounted at either end of the car body in the typical European fashion.

#### Combination of Bock with Christoph

The office action of October 21, 2001 did not provide any objective reference to show that there is, or was, any suggestion, motivation or incentive to combine the Bock and Christoph references. As such, a necessary requirement for a *prima facie* rejection under 35 USC 103 has not been met.

#### Combination of Hesch with Bock and Christoph

The office action of October 21, 2001 did not provide any objective reference to show that there was, or is, a suggestion, motivation, or incentive to combine Hesch with either Bock or Christoph, let alone with both. As such, a necessary requirement for a *prima facie* rejection under 35 USC 103 has not been met.

Destruction of Function: Combination of Hesch and Bock

As noted above, using the permanent articulated connection of Hesch with the rail cars of Bock deprives Bock of one of his desiderata: the ability to make up train consists of any number of cars. Bock would therefore tend to teach away from the proposed combination.

Summary

For all of the foregoing reasons, the applicant submits that the rejection of claim 58 as obvious given Christoph in light of Bock, and further in light of Hesch did not meet the requirements of a *prima facie* rejection of claim 58 under 35 USC. There is no motivation, suggestion, or incentive to make the proposed combination. The combination may destroy the function of at least one of the references, and, even taken at its highest, the combination will not yield all of the elements of the claimed invention. For all of these reasons, the applicant submits that claim 58, and all claims dependent from claim 58, namely claims 47 – 54 and 66 – 71, are allowable over Christoph in light of Bock and further in light of Hesch.

In the event that the Examiner seeks to re-state the rejection, the applicant requests under MPEP 707.07 that the Examiner specifically identify, by line and column number, and by Figure and item number, as may be the case, (a) any and all locations in Christoph, Bock or Hesch at which there is a suggestion, motivation, or incentive for the combination of the references as proposed; (b) any indication that either Bock or Christoph pertains to rail road freight cars; (c) any indication in Bock or Hesch that the cars are to be used for interchange service in North America; (d) a positive demonstration that Christoph has any two axle trucks; and (e) a demonstration that Hesch has a cantilevered articulation.

Claim 57 and Claims Dependent Therefrom

The applicant repeats, to the extent applicable, the commentary made in the context of claim 58 with respect to the rejections of claim 57 and the claims dependent therefrom given (a) Ehrlich in light of Bock, and further in light of Hesch; and (b) Christoph in light of Bock and further in light of Hesch.

In that regard, the applicant notes that neither Ehrlich, nor Bock, nor Hesch, nor Christoph show a three pack articulated rail road freight car that has a middle unit that has a pair

of first and second, spaced apart two axle trucks pivotally mounted thereto. Bock shows a three pack, but its central car (a) has single axle trucks, not double axle trucks; and (b) it does not have pivotally mounted double axle trucks. The dynamics of pivotally mounted double axle trucks are very different from the dynamics of single axle trucks.

As such, not only is there no suggestion, motivation, or incentive to make the combinations suggested by the Examiner, as discussed above, and, not only might the combinations suggested result in destruction of function as discussed above, but further, even if the combinations were made as proposed, the result would not yield the claimed invention. As such, the applicant submits that the Examiner did not meet the requirements of a *prima facie* rejection of claim 57 under 35 USC 103. The applicant further submits that claim 57 and all claims dependent from it, namely claims 59 – 65, are presently allowable.

#### Independent Claim 72 and claims 73 - 82

The applicant makes the same commentary with respect to claim 72, and the claims dependent from it, as made in the context of claim 57. With specific regard to claim 72, the claim requires that there be an articulated rail road freight car that has two, pivoting two-axle trucks mounted under one rail car body, and a cantilevered articulated connection between that rail car body and another rail car body.

Neither Ehrlich, nor Bock, nor Hesch, nor Christoph show, describe, or suggest such a car, whether taken alone or in combination. The applicant submits that claim 72, and claims 73 – 82 are allowable over the art cited by the Examiner.

#### Independent Claim 83

The same commentary is made by the applicant in support of independent claim 83 as was made in support of independent claim 57. The applicant submits that claim 83 is presently allowable.

#### General Commentary on the Office Action

(a) MPEP 707.07(f) Answer All Material Traversed

“Where the requirements are traversed, or suspension thereof requested, the examiner should make proper reference thereto in his or her action on the amendment.

*Where the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant’s argument and answer the substance of it.*

If a rejection of record is to be applied to a new or amended claim, specific identification of that ground of rejection, as by citation of the paragraph in the former Office letter in which the rejection was originally stated should be given.” (Emphasis added).

(b) Office Actions Must be Prepared in Conformity with the Law

The applicant still further notes that none of the rejections made under 35 USC 103 has been made in conformity with the law or with the procedure set forth in the MPEP, and by which procedure the Examiner is required to act.

The need for demonstration of a motivation, suggestion, or incentive to combine the references cited is an essential requirement for establishing a rejection under 35 USC 103. This has been established by statute and case law, and is reflected in MPEP 2142.

Omission of a relevant factor [*i.e.*, the essential requirement of showing suggestion, motivation, or incentive] required by precedent is both legal error and arbitrary agency action. – *In re Lee, supra*.

“It is well established law that agencies [*i.e.*, including the Patent Office] have a duty to provide reviewing courts with a sufficient explanation for their decisions so that those decisions may be judged against the relevant statutory standards, and that failure to provide such an explanation is grounds for striking down the action.” – *In re Lee, supra*.

“[A]n agency is not free to refuse to follow circuit precedent”. – *In re Lee, supra*.

“Reasoned findings are critical to the performance of agency functions...” – *In re Lee, supra*.

It is an Examiner’s duty to prepare, and an applicant’s right to receive, an office action

that has been prepared in conformity with the law and in conformity with the procedures set forth in the MPEP.

None of the rejections made to date in this matter on the basis of 35 USC 103 have provided either (a) an objective basis in the cited references establishing any suggestion, motivation or incentive for combining the references, or (b) reasoned findings supported by objective evidence to establish a *prima facie* basis for the rejection. Indeed, the necessity of meeting this essential requirement of the law appears repeatedly to have been ignored.

Neither the Commissioner of Patents nor his delegates appointed to examine applications have the right to exercise discretion either to ignore the law or to refuse to follow the precedent of the Court of Appeals for the Federal Circuit.

(c) The applicant still further notes that the rejections made under 35 USC 103 in the office actions of March 20, 2001 and October 22, 2001 were of an omnibus nature. The office action fails specifically to identify the manner in which each rejection is thought to be applicable to the each of the claims presently pending in the case.

As noted in *In re Lee*, the need for specificity pervades the caselaw. Conclusory statements by an examiner do not adequately address the issue of motivation to combine.

(d) In light of the foregoing, in the event that the Examiner upholds the rejection of one or more of the claims presently pending in this case the applicant requests that, in conformity with the Examiner's duty under the law:

- (i) that the Examiner identify *with specificity* which references are being cited against each specific claim, and the specific features in the references that are sought to be applied to each claim, by Figure and item number or by column and line number;
- (ii) that the Examiner address *by reasoned argument, and in specific detail*, each of the applicant's arguments;
- (iii) that, where a rejection is made under 35 USC 103, the Examiner identify, *with precision and in specific detail* (e.g., by way of Figure and item number, or by

column and line number), the location in the references at which a suggestion, motivation, or incentive is provided to make the proposed combination of references; and

- (iv) that any and all rejections made in this case conform to the format specified in *Ex Parte Rozzi* 63 USPQ2d 1196 (BdPatApp&Int 2002) and *Ex parte Braeken*, 54 USPQ2d 1110 (Bd. Pat. App. & Int. 1999).

8) Conclusion

In view of the foregoing election, arguments and claim amendments the applicant submits that the claims are in a condition to permit allowance. Therefore the applicant requests early and favorable disposition of this application.

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Respectfully submitted,



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